



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

cles. The more highly a bar is magnetized, the more it becomes susceptible of a loss of power by agitation.

“An Account of a Protracting Pocket Sextant.” By Colonel Bainbridge. Communicated by P. M. Roget, M.D., Sec. R.S.

The object of the invention here described is to facilitate and expedite the making of sketches and surveys for military purposes on actual service, and by serving at once as a sextant and protractor, so that as soon as an angle is taken, it may at once be laid down on paper by employing the two legs of the instrument as rulers. A description referring to a diagram is given of this portable sextant.

“Observations on the Growth and Development of the Epidermis.” By Erasmus Wilson, Esq., F.R.S., Lecturer on Anatomy and Physiology in the Middlesex Hospital.

The author adduces evidence derived from his microscopic observations, in confirmation of the commonly received doctrine respecting the origin of the cells of the epidermis and epithelium generally, from the materials furnished by the liquor sanguinis or plasma of the blood; which fluid, passing by endosmosis through the walls of the capillary vessels and peripheral boundary of the surface, develops granules by a vital process, analogous to coagulation. On a careful examination of the inner surface of the epidermis with the aid of the microscope, he finds it to be composed of four kinds of elements, arranged in such a manner as to constitute an irregular plane, similar to a tessellated or mosaic pavement. These elements are,—1. *Granules*, which the author terms *primitive*, of a globular form, solid and apparently homogeneous, and measuring about 1-20,000th part of an inch in diameter. 2. *Aggregated granules*, having about double the diameter of the former and apparently composed of as many of these as can be aggregated together without leaving an unoccupied space in the centre of the mass. 3. *Nucleated granules* measuring in diameter from the 6000th to the 4000th part of an inch, each being composed of an aggregated granule as a nucleus, enveloped by a single layer of aggregated granules, giving to the whole mass an oval or circular, and at the same time flattened shape. Their constituent granules have acquired, during this aggregation, greater density, and are separated from each other by distinct interstitial spaces filled with a transparent homogeneous substance. 4. *Nucleolo-nucleolated* cells pervading the deep stratum of the epidermis, and of which the longer diameter measures from the 3000th to the 2500th part of an inch. These cells, which constitute the principal portion, and may be regarded as the chief constituent of the epidermis, are formed from the nucleolated granules, on the exterior of which there is superposed a transparent layer, bounded by a well-defined outline, by the dark interstitial substance of the wall of the cell; the nucleolated granule being the nucleus, and the aggregated granule the nucleolus of these primitive cells of the epidermis. The author is of opinion that the nuclei, up to a certain point, grow with the cells, by the separation of the original granules from the deposi-